Purpose: Concurrent chemoradiotherapy has become the standard treatment for unresectable locally advanced non-small cell lung cancer (NSCLC). However, distant metastases remain the major site of failure. Here we report a randomized phase II trial of consolidation chemotherapy with monthly paclitaxel and cisplatin (PC) or observation after concurrent chemoradiotherapy in patients with locally advanced NSCLC to evaluate the feasibility and the role of consolidation chemotherapy.

Methods: Between March 2000 and August 2002, a total of 104 unresectable stage III NSCLC patients who showed at least minimal response (6 complete, 86 partial, and 12 minimal responses) after concurrent chemoradiotherapy were randomized to receive 3 cycles of consolidation chemotherapy (n=50) or to be observed (n=54). Concurrent chemoradiotherapy consisted of weekly paclitaxel 40 mg/m^2 and cisplatin 20 mg/m^2 plus thoracic radiation (total dose of 70.2 Gy). Consolidation chemotherapy with paclitaxel 135 mg/m^2 and cisplatin 60 mg/m^2 started 4 weeks after completion of concurrent chemoradiotherapy and repeated every 4 weeks.

Results: With a median follow-up of 41 months, there were no significant differences in progression-free survival (PFS) and overall survival (OS) between consolidation and observation groups (median PFS, 13 vs. 12 months; median OS, 19 vs. 24 months). During consolidation PC, grade 3 or 4 neutropenia was observed in 29% of the patients. However, there was no episode of febrile neutropenia.

Conclusions: Consolidation chemotherapy with monthly PC after concurrent chemoradiotherapy is feasible and generally tolerable, however, does not show a survival benefit in locally advanced

PD4-1-8 **Combined Modality Therapy in NSCLC, Tue, 16:00 - 17:30**

Prognostic impact of total tumor volume in stage III non-small-cell lung cancer treated with concurrent chemoradiotherapy

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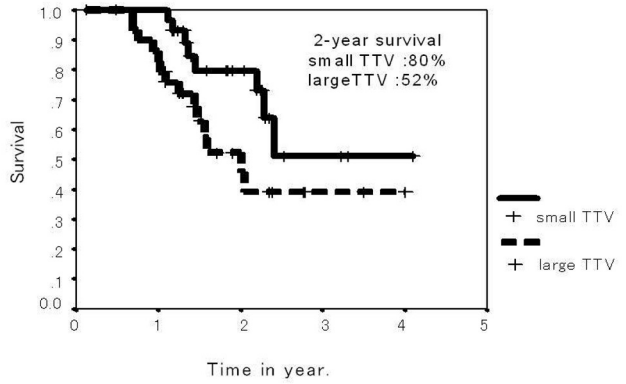
Background: Some papers report that tumor volume is a significant prognostic factor in thoracic radiotherapy for non-small-cell lung cancer (NSCLC) patients. The purpose of this study is to investigate and confirm the impact of total tumor volume(TTV) on survival in patients with stage III NSCLC treated with thoracic radiotherapy and concurrent chemotherapy.

Methods: From prospectively maintained database of our department, sixty patients were identified who underwent thoracic radiotherapy and concurrent chemotherapy in stage III NSCLC patients with an age under 75 year between October 2002 and December 2005. All patients underwent a CT scanning to facilitate treatment planning. TTV were calculated by the three-dimensional radiotherapy planning system. The median follow-up duration was 21 months in surviving patients. The Kaplan-Meier method, the log rank test and the Cox proportional hazard model were used for evaluation of survival. Survival was updated on March 1,2007.

Results: The patients consisted of 47 males and 13 females in gender, 64 year old of median age (range 44-75), 27 IIIA and 33 IIIB in TNM staging, 24 squamous cell carcinoma, 30 adenocarcinoma and 6 others in histology and 39 PS 0, 19 PS1, 2 PS2 in performance status, respectively. TTV was ranged between 11 and 1512 cc (median 78.5 cc). A prescribed dose of radiotherapy was 60 Gy in 30 fractions using 4-,6- or 10-MV X-rays in all patients. Chemotherapy regimens were as follows: 1) weekly paclitaxel (TXL)+ weekly carboplatin(CBDCA) consolidation CBDCA + TXLx2 in 33 patients, 2) mitomycin C + vindesine+ cisplatin x 4 in 12, 3)cisplatin+vinorelbinex4 in 8 and 4)others in 7. The overall 2-year survival rate was 66 %. In patients with larger TTV than median TTV 78.5 cc and with smaller TTV, the overall 2-year survival rates were 52% and 80%, respectively. The median overall survival was 29 months. The median overall survival with smaller TTV is not mature enough to be evaluated. On univariate analysis, stage IIIA was significantly better prognostic factor than IIIB (P=0.042) and the survival with smaller TTV tends to be favorable (P=0.056). PS (P=0.908) and gender (P=0.356) were not significant. On multivariate analysis, there was tendency of favorable survival in smaller TTV (P=0.068) and others (stage, PS, gender) were not significant.

Conclusion: TTV is an independent prognostic factor in stage III NSCLC treated with concurrent chemoradiotherapy.



PD4-2-1 **Cytotoxic Chemotherapy I, Tue, 16:00 - 17:30**

Optimal duration of chemotherapy for advanced non-small cell lung cancer: A systematic review and meta-analysis

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Background: The optimal duration of chemotherapy for advanced non-small cell lung cancer (NSCLC) is unclear. We performed a systematic review and meta-analysis of published randomized controlled trials (RCT) comparing longer versus shorter durations of chemotherapy.

Methods: We searched MEDLINE, EMBASE and CENTRAL for RCTs comparing 1) a defined number of cycles of chemotherapy versus continuing until disease progression, 2) a defined number of cycles versus a higher number of cycles of the same chemotherapy and, 3) a defined number of cycles of initial chemotherapy vs the same initial chemotherapy followed by additional cycles of a different chemotherapy. The primary outcome was overall survival (OS). Secondary outcomes included progression-free survival (PFS), adverse events (AE), and quality of life (QL). Hazard ratios (HR), confidence intervals (CI) and p-values (p) were estimated with fixed effects models using Revman 4.2.8